

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): Process for obtaining a heating fluid to be used as indirect heat source for carrying out endothermic reactions, comprising the steps of:

-feeding a flow comprising hydrocarbons and a gas flow comprising oxygen to a combustor, wherein such flows are suitably compressed;

- burning said hydrocarbons in presence of said oxygen in the combustor, thus obtaining a high temperature fluid comprising carbon dioxide and oxygen;

wherein the process characterised in that it further comprises the step of feeding a flow comprising water, ~~preferably in the form of vapour,~~ to said high temperature fluid and/or to said combustor.

2. (currently amended): Process according to claim 1, further comprising~~characterised by the fact of~~ feeding said water in an amount comprised between 0.10,1 and 0.70,7 times the flow comprising oxygen.

3. (currently amended): Process according to claim 1, wherein~~characterised in that~~ said flow comprising water is fed to said high temperature fluid and/or to said combustor as vapour obtained through evaporation of a water flow at a predetermined pressure.

4. (currently amended): Process according to claim 1, wherein~~characterised in that~~ said flow comprising water is fed in said combustor in the form of vapour together with said flow comprising oxygen.

5. (currently amended): Process according to claim 4, further comprising~~characterised in that it comprises~~ the steps of:

- feeding at a predetermined pressure said flow comprising water into the flow comprising oxygen upstream of said combustor;
- heating the so-obtained flow in such a way to let the water at least partially evaporate and obtain a flow comprising oxygen and water vapour.

6. (currently amended): Process according to claim 4, further comprising~~characterised in that it comprises~~ the steps of:

- heating said flow comprising water;
- feeding at a predetermined pressure the suitably heated flow comprising water into the flow comprising oxygen upstream of the combustor, in such a way to let the water at least partially evaporate and obtain a flow comprising oxygen and water vapour.

7. (currently amended): Process for carrying out hydrocarbon reforming reactions in an exchanger type reformer, comprising the steps of:

- feeding a gas flow comprising hydrocarbons and water vapour in a reaction space (25) comprising catalyst in said exchanger type reformer;

- feeding a heating fluid in a space (26) adjacent to said reaction space (25) in said exchanger type reformer;

- reacting in a catalytic way the gas flow comprising hydrocarbons by indirect heat exchange with the heating fluid, thus obtaining a gas flow comprising hydrogen;

wherein ~~characterised in that~~ said heating fluid comprises water, ~~preferably in the form of vapour.~~

8. (currently amended): Process wherein ~~characterised in that~~ said heating fluid is obtained through a process according to claim 1.

9. (currently amended): Process according to claim 8, further comprising ~~characterised in that it further comprises~~ the step of cooling down the heating fluid leaving the exchanger type reformer by indirect heat exchange with a flow comprising oxygen and/or water fed to said combustor.

Claim 10 (cancelled).